

REMARKS/ARGUMENTS

Applicant acknowledges the receipt and citation of the publication entitled "Concrete Reinforcement" with the communication dated March 31, 2005. Confirming the telephone conference with the Examiner on April 7, 2005, it is understood that since this reference was not identified and included with the Office Action of March 11, 2005, a response to the Office Action of March 11, 2005 has been extended to June 30, 2005. Applicant also confirms the provisional election of the embodiment of FIGS. 1-5 in which originally filed claims 1-3, 7-10, 14, 15 are readable. Applicant has also carefully reviewed the Office Action in light of the cited references and the Examiner's comments, and accordingly, applicant is replacing originally filed independent claims 1 and 9 with new claims 20 and 21 and is cancelling claims 1 and 9-19 to distinguish applicant's invention more clearly and to place this application in condition for allowance.

Referring to new claim 20 which is readable on the embodiment of FIGS. 1-5 and also on the embodiment of FIGS. 6-8, applicant's precast concrete retaining wall structure as set forth in lines 1-7 is disclosed in applicant's Patent No. 4,993,872 cited by applicant on page 1 of the present application and in his Information Disclosure Statement. New claim 20 further includes a set of generally vertical primary reinforcing bars (54) extending only within a portion of the retaining wall adjacent opposite sides of the reinforcing members (43) within the web wall of the anchor member (21) and projecting above the anchor member between the web wall (32) and the connecting portions (46) of the reinforcing members (43), secondary reinforcing members (24) extending generally throughout the retaining wall, and the secondary reinforcing members (24) being substantially lighter and smaller than the primary reinforcing bars (54) for substantially reducing the total weight of the secondary reinforcing members within the retaining wall and thereby substantially reduce the total weight of the retaining wall system.

As set forth on page 6 of the above application, this substantial reduction in the total weight of the precast concrete retaining wall or wing wall is highly desirable

since the cost of handling and shipping the precast retaining wall is significantly reduced as well as the cost of installing the retaining wall system. For example, as a result of the lower weight, additional retaining wall systems or units may be transported on a low bed semi-trailer from the precasting site to the installation site, and a lower capacity crane may be used at the installation site for moving each retaining wall unit from the trailer to a position on the concrete footers.

Applicant is thoroughly familiar with the precast concrete retaining wall structure disclosed in his Patent No. 4,993,872 and which has been in production and in use for over 20 years. In this structure, the two mats 99 of reinforcing bars, as disclosed in connection with FIG. 15 of the patent, extend throughout the wing wall 95 and are commonly constructed of horizontally extending and vertically extending 5/8" rebars wired together at the intersections. In contrast, applicant's secondary reinforcing members 24, 24' and 24", as set forth in new claim 20 and disclosed in the above application, are substantially smaller and lighter, such as steel fibers or welded wire mesh and provide for a total steel reduction in a wing wall of about 40%.

After carefully reviewing the published article entitled "Concrete Reinforcement", applicant is unable to find any suggestion for reconstructing the wing wall structure disclosed in his '872 patent to arrive at the retaining wall system including the structure set forth in above new claim 20. While the "Concrete Reinforcement" publication discloses various methods of reinforcing concrete, such as with the use of steel rebars and steel fibers, the publication fails to teach the specific combination and location of applicant's primary reinforcing bars with the substantially lighter and smaller secondary reinforcing bars, as called for in the retaining wall system set forth in new claim 20 and which provides all of the advantages mentioned above.

The above comments also apply to new independent claim 21 and dependent claims 2-8 which include all of the structure of claim 20. In addition, claim 21 includes a plurality of horizontally spaced anchor members (21 & 22) each

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only within a portion of the retaining wall adjacent the reinforcing members (43). This additional structure is also neither disclosed nor suggested by the references.

With respect to claim 2, the enlarged head portions (46) of the reinforcing members (43) within the web wall (32) permit the primary reinforcing bars (54) to be located close together on opposite sides of the reinforcing members (43) within the web wall (32), as shown in FIG. 5, when the projecting reinforcing members (43) of the previously precast anchor member (21 or 22) are inserted into the forms for precasting the wing wall (23). This additional structure is not taught by the references nor do the references teach the relation of the web wall (32) to the primary reinforcing bars (52, 54), as called for in claim 3 or the combination of the internally threaded tubular anchors (62, 94) within the retaining wall, as recited in claims 4-6, or the use of metal reinforcing fibers or mesh of reinforcing wires to form the secondary reinforcing members, as set forth in claims 7 and 8.

In view of the foregoing, applicant respectfully submits that each of new independent claims 20 and 21 and the claims dependent therefrom defines a precast concrete retaining wall system which is clearly distinguished from the references. Accordingly, applicant believes that these claims are now in condition for allowance and respectfully requests that this application be passed to issue.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Alan Meckstroth", written over a horizontal line.

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